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July 22, 2002

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Commissioner for Patents
Washington, D.C. 20231

Re: U.S. Patent Application Serial No. 09/667569
For: *Methods and Microorganisms for Production of Panto-Compounds*
Inventors: Yocum, R. Rogers, et al.
Filed: September 21, 2000
Our Ref. No.: BGI-141CP

Dear Sir:

I enclose herewith for filing in the above-identified application the following:

1. Information Disclosure Statement;
2. PTO Form 1449;
3. Copies of references cited in PTO Form 1449 (62); and
4. A Return Postcard.

No additional costs are believed to be due in connection with the filing of this Information Disclosure Statement. However, please charge any necessary fees in connection with the enclosed statement to our Deposit Order Account No. 12-0080. For this purpose, a duplicate of this sheet is attached.

Certificate of First Class Mailing (37 CFR §1.8(a))

I hereby certify that this correspondence is deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on:

July 22, 2002

Date

Debra J. Milasincie, Esq., Reg. No. 46,931

Respectfully submitted,
LAHIVE & COCKFIELD, LLP
Debra J. Milasincie, Esq.
Registration No. 46,931
Attorney for Applicants



H/M

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Yocum, R. Rogers, *et al.*

Serial No.: 09/667569

Filed: September 21, 2000

For: *Methods and Microorganisms for Production of Panto-Compounds*

Attorney Docket No.: BGI-141CP

Group Art Unit: 1652

Examiner: K. Kerr

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July 22, 2002

Date of Signature and of Mail Deposit

By:

Debra J. Milasincic, Esq.
Registration No. 46,931
Attorney for Applicants

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

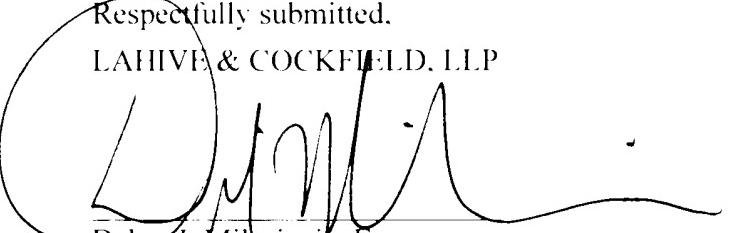
Applicants and their Attorney are aware of the following publications and information, listed on the attached PTO Form 1449, and in accordance with 37 CFR §1.97 hereby submit these publications for the Examiner's consideration. A copy of each cited publication is enclosed. Copies of translations for references A18, A19, A20 and A21 are also enclosed.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, Applicants understand that the Examiner will make an independent evaluation of the cited publications.

In accordance with 37 CFR §1.97(c)(2) and §1.17(p), please charge the \$180.00 submission fee to our Deposit Order Account No. 12-0080. Please charge any necessary additional fees or credit any overpayments to our Deposit Order Account No. 12-0080.

Respectfully submitted,

LAHIVE & COCKFIELD, LLP



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Date: July 22, 2002

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Enclosures

APPLICANT FACSIMILE OF FORM PTO-1449 REV 7-80		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO BGI-141CP	SERIAL NO 09/667569
P E LST OF PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary) JUL 25 2002		APPLICANT	Yocum, R. Rogers et al.	
		FILING DATE September 21, 2000	GROUP 1652	

PATENTS & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

Part of Paper No. 12

EXAMINER NAME	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A1 5,089,276	02/92	Yamashita et al.	424	686	
	A2 5,294,542	03/94	Sloma et al.	435	69.1	
	A3 5,518,906	05/96	Hikichi et al.	435	116	
	A4 5,529,908	06/96	Palva et al.	435	69.1	
	A5 5,534,420	07/96	Debono et al.	435	71.3	
	A6 5,599,689	02/97	Haynie et al.	435	42	
	A7 5,721,137	02/98	Frascoli et al.	435	320.1	
	A8 5,756,536	05/98	Chen et al.	514	449	
	A9 5,856,165	01/99	Van Solingen	435	209	
	A10 5,912,164	06/99	Warneck et al.	435	280	
	A11 5,925,538	07/99	Perkins et al.	435	66	
	A12 5,932,457	08/99	Moriya et al.	435	146	

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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	A13	EP 224294 B1	06/87	EPO			
	A14	EP 493060 A2,A3	07/92	EPO			
	A15	EP 590857 A2	04/94	EPO			
	A16	WO 97/10340 A1	03/97	PCT			
	A17	WO 98/18954 A1	05/98	PCT			
	A18	EP 1001027 A2,A3	05/00	EPO			x
	A19	EP 1001189 A2	06/00	EPO			x
	A20	EP 1001192 A2	06/00	EPO			x
	A21	EP 1001193 A2	06/00	EPO			x
	A22	WO 01/83799 A1	11/01	PCT			

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A23	Braigori, M. et al. "Isolation and Characterization of <i>Bacillus subtilis</i> Mutants Blocked in the Synthesis of Pantothenic Acid" <i>J. Bacteriol.</i> 173(13):4240-4242 (Jul. 1991)
A24	Downs, DM "Evidence for a new, oxygen-related biosynthetic pathway for the pyrimidine moiety of thiamine in <i>Salmonella typhimurium</i> " <i>J. Bacteriol.</i> 174(5):1515-1521 (Mar. 1992)
A25	Downs, DM et al. "apbA, a New Genetic Locus Involved in Thiamine Biosynthesis in <i>Salmonella typhimurium</i> " <i>J. Bacteriol.</i> 176(16):4858-4864 (Aug. 1994)
A26	Dusch, N. et al. "Cloning and characterization of the <i>C. glutamicum</i> ATCC13032 panD gene coding for L-aspartate-?-decarboxylase" no. P-L 06 (Mar. 1999)

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

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LST B PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary)		APPLICANT Yocum, R. Rogers et al.	
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OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

		Dusch, N. et al. "Expression of the <i>Corynebacterium glutamicum panD</i> Gene Encoding L-Aspartate- α -Decarboxylase Leads to Pantothenate Overproduction in <i>Escherichia coli</i> " <i>Applied and Environmental Microbiology</i> 65(4):1530-1539 (Apr. 1999)
	B2	Elischewski, F. et al. "Pantothenate production in <i>Escherichia coli</i> K12 by enhanced expression of the <i>panE</i> gene encoding ketopantoate reductase" <i>J. Biotechnol.</i> 75(2-3):135-46 (Oct. 8, 1999)
	B3	Elischewski, F. et al. "Identification and analysis of the <i>panE</i> gene involved in pantothenate biosynthesis in <i>Escherichia coli</i> K12" Abstract no. P-L 29 (Mar. 1999)
	B4	Frodyma, ME et al. "ApbA, the Ketopantoate Reductase Enzyme of <i>Salmonella typhimurium</i> is Required for the Synthesis of Thiamine via the Alternative Pyrimidine Biosynthetic Pathway" <i>J. Biol. Chem.</i> 273(10):5572-5576 (Mar. 6, 1998)
	B5	Frodyma, ME et al. "The <i>panE</i> Gene, Encoding Ketopantoate Reductase, Maps at 10 Minutes and Is Allelic to <i>apbA</i> in <i>Salmonella typhumurium</i> " <i>J. Bacteriol.</i> 180(17):4757-4759 (Sep. 1998)
	B6	Hoch, JA et al. "Panspermia, spores and the <i>Bacillus subtilis</i> genome." <i>Nature</i> 390(6657):237-8 (Nov. 20, 1997)
	B7	Jackowski, S. "Biosynthesis of Pantothenic Acid and Coenzyme A" in <i>Escherichia coli</i> and <i>Salmonella typhimurium</i> : Cellular and molecular biology, Second edition. (Neidhardt et al. Eds.) Washington, D.C.: American Society of Microbiology, 687-694 (1995);
	B8	Kunst, F. et al. "The complete genome sequence of the Gram-positive bacterium" <i>Bacillus subtilis</i> " <i>Nature</i> 390(6657):249-56 (Nov. 20, 1997)
	B9	Merkel, WK et al. Characterization and sequence of the <i>Escherichia coli panBCD</i> gene cluster" <i>FEMS Microbiol Lett.</i> 143(2-3):247-52 (Oct. 1, 1996)
	B10	Ramjee, MK et al. "Escherichia coli L-aspartate- α -decarboxylase: preprotein processing and observation of reaction intermediates by electrospray mass spectrometry" <i>Biochem. J.</i> 323 (Pt 3):661-9 (May 1, 1997)
	B11	Sahm, H. et al. "D-Pantothenate Synthesis in <i>Corynebacterium glutamicum</i> and Use of <i>panBC</i> and Genes Encoding L-Valine Synthesis for D-Pantothenate Overproduction" <i>Applied and Environmental Microbiology</i> 65(5):1973-1979 (May 1999)
	B12	Shimizu, S. et al. "Ketopantoic Acid Reductase of <i>Pseudomonas maltophilia</i> 845" <i>J. Biol. Chem.</i> 263(24):12077-12084 (Aug. 25, 1988)
	B13	Sorokin, A. et al. "Sequence analysis of the <i>Bacillus subtilis</i> chromosome region between the <i>serA</i> and <i>kdg</i> loci cloned in a yeast artificial chromosome" <i>Microbiology</i> 142:2005-2016 (1996)
	B14	Vandamme, EJ "Production of vitamins, coenzymes and related biochemicals by biotechnological processes" <i>J. Chem. Tech. Biotechnol.</i> 53(4):313-327 (1992)
	B15	Vandamme, EJ "The search for novel microbial fine chemicals, agrochemicals and biopharmaceuticals" <i>J. Biotechnol.</i> 37(2):89-108 (1994)
	B16	GenBank U09529 <i>Salmonella typhimurium</i> LT2 ApbA protein (apbA) gene, complete cds. 07-DEC-1994
	B17	GenBank P37402 2-dehydropantoate 2-reductase (Ketopantoate reductase) (KPA reductase) (KPR) 15-DEC-1998

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		GROUP 1652	

OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

C1	GenBank AAA56681 ApbA protein [Salmonella typhimurium] 07 DEC 1994
C2	GenBank Z99111 AL009126 Bacillus subtilis complete genome (section 8 of 21): from 1394791 26 NOV 1997
C3	GenBank P52996 3-Methyl-2-Oxobutanoate Hydroxymethyltransferase (Ketopantoate Hydroxymethyltransferase) 01 OCT 1996
C4	GenBank Z98682 Bacillus subtilis genomic DNA 23.9kB fragment 19 AUG 1997
C5	GenBank O34661 Probable 2-Dehydropantoate 2-Reductase (Ketopantoate Reductase) (Kpa Reductase) 01 NOV 1998
C6	GenBank CAB13317 similar to thiamin biosynthesis [Bacillus subtilis] 26 NOV 1997
C7	GenBank CAB11364 YlbQ protein [Bacillus subtilis] 19 AUG 1997
C8	GenBank P37402 2-dehydropantoate 2-reductase (Ketopantoate reductase) (KPA reductase) (KPR) 15 DEC 1998
C9	GenBank P52999 Aspartate 1-decarboxylase precursor (Aspartate alpha-decarboxylase) Aspartate 1-decarboxylase precursor (Aspartate alpha-decarboxylase) 15 DEC 1998
C10	GenBank P77728 2-dehydropantoate 2-reductase (Ketopantoate reductase) (KPA reductase) (KPR) 15 DEC 1998
C11	GenBank U09529 Salmonella typhimurium LT2 ApbA protein (apbA) gene, complete cds 07 DEC 1994
C12	GenBank Z98682 Bacillus subtilis genomic DNA 23.9kB fragment 19 AUG 1997
C13	GenBank P37253 Ketol-acid reductoisomerase (Acetohydroxy-acid isomeroreductase) (Alpha-keto-beta-hydroxylacil reductoisomerase) 15 DEC 1998
C14	GenBank P37252 Acetylactate synthase small subunit (AHAS) (Acetohydroxy-acid synthase small subunit) (ALS) 15 DEC 1998
C15	GenBank P37251 Acetylactate synthase large subunit (AHAS) (Acetohydroxy-acid synthase large subunit) (ALS) (Vegetative protein 105) (VEG105) 15 JUL 1998
C16	GenBank P52998 Pantoate--beta-alanine ligase (Pantothenate synthetase) (Pantoate activating enzyme) 15 DEC 1998
C17	GenBank P51785 Dihydroxy-acid dehydratase (DAD) (Vegetative protein 110) (VEG110) 15 DEC 1998
C18	GenBank F69875 pyrimidine-thiamin biosynthesis homolog ylbQ - Bacillus subtilis. 05-NOV-1999
C19	EMBL L47709 Bacillus subtilis (clone YAC15-6B) ypiABF genes, qcrABC genes, ypjABCDEFGHI DE genes, birA gene, panBCD genes, dinG gene, ypmB gene, aspB gene, asnS gene, DE dnaD gene, nth gene and ypoC gene, complete cds. 23 JAN 1996

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